

SAP Banking Technology



Technical Overview

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THE BEST-RUN BUSINESSES RUN SAP™

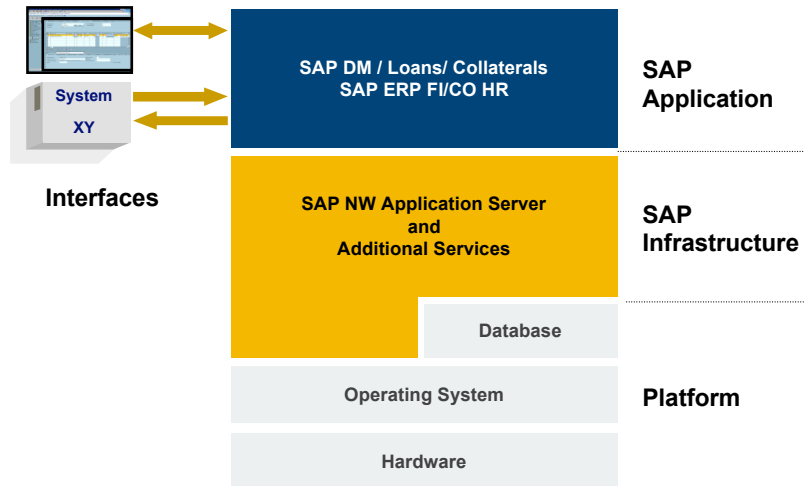


Basic SAP Application Concept



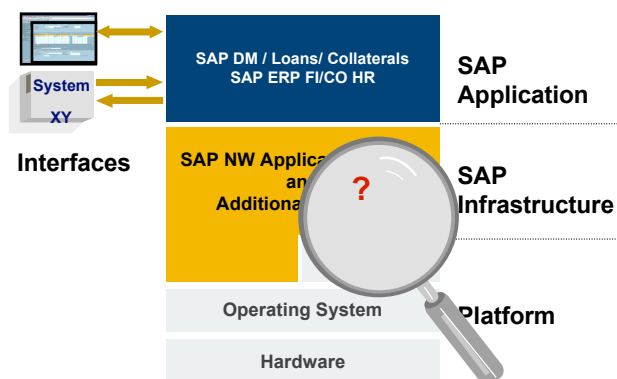
Who?	Layer	Purpose
SAP Application Development	SAP Application (e.g. SAP DM)	Business Logic
SAP System Development	SAP Infrastructure	Run time
3rd party Vendor	Platform	Hardware, OS, Database

Overview architecture SAP Applications

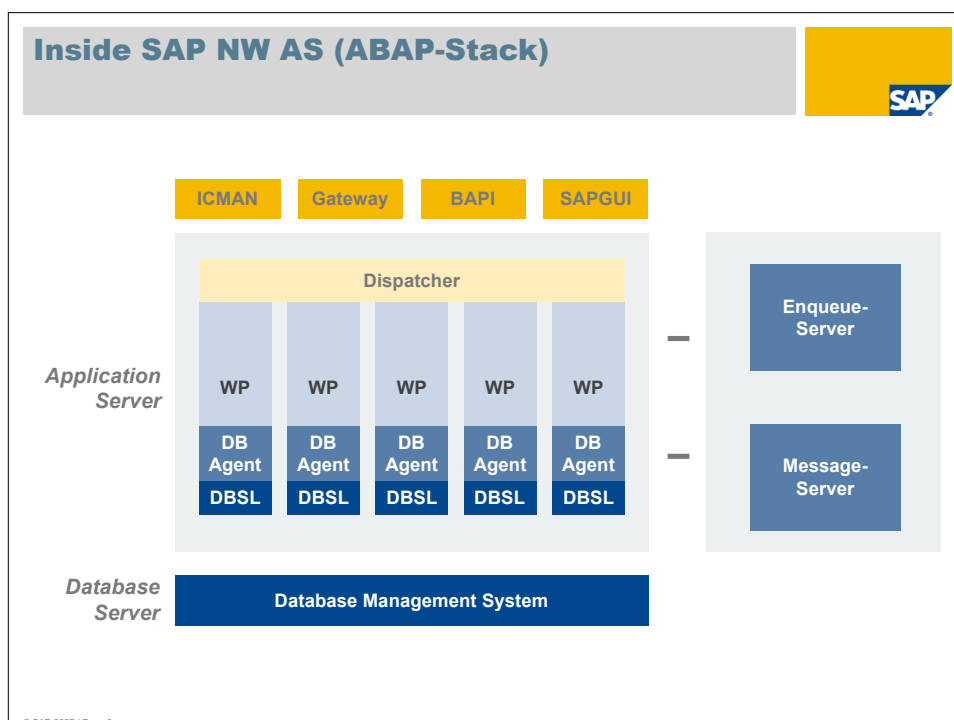
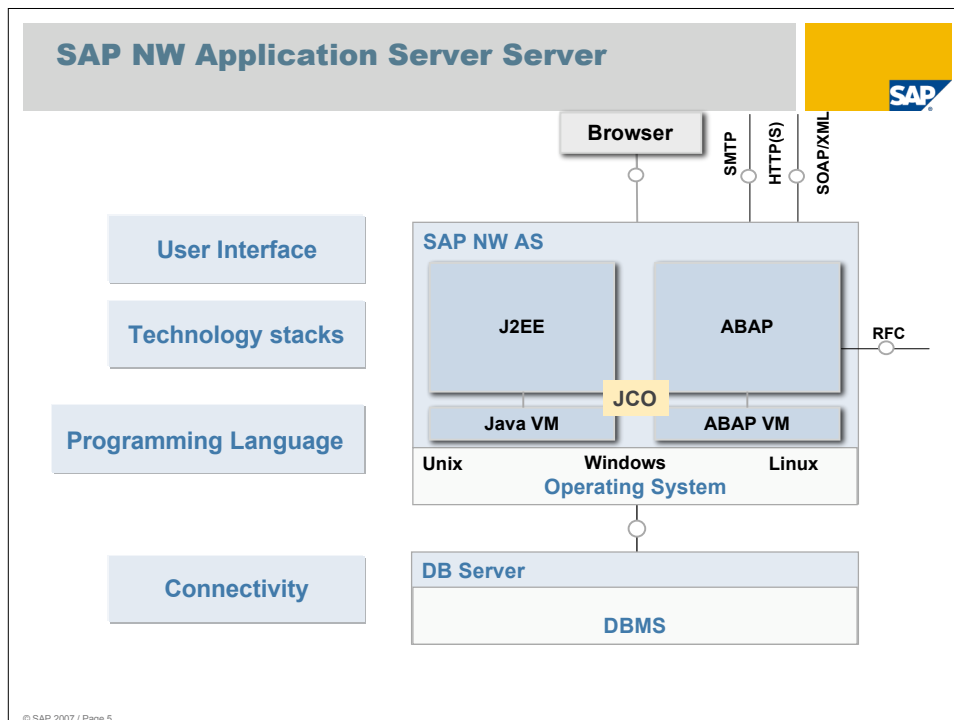


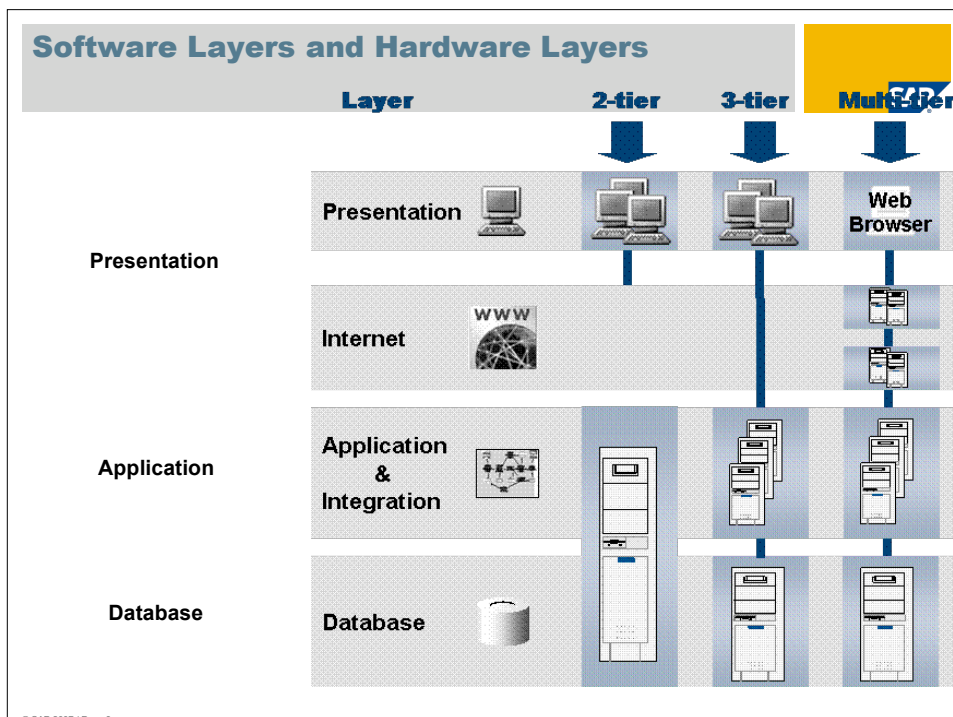
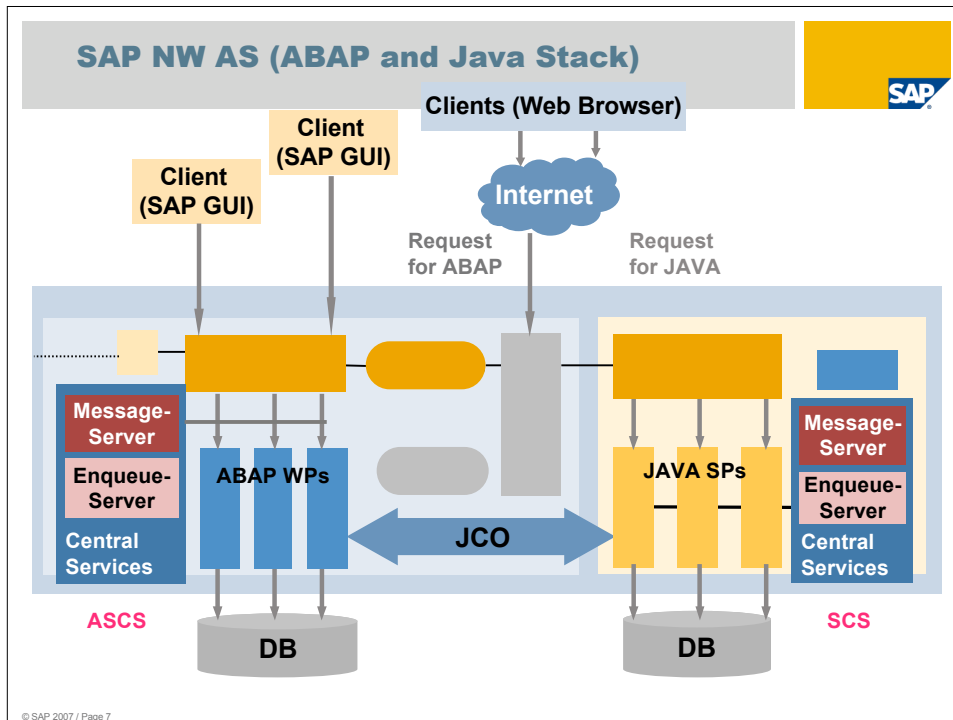
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What is „SAP Infrastructure“ ??

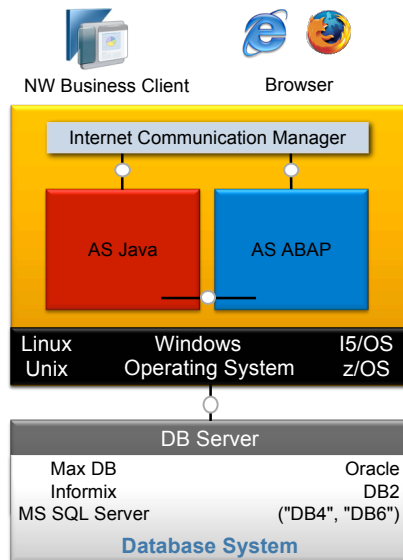


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SAP NetWeaver Application Server



Platform support

- Operating systems: Windows, Linux, HP-UX, AIX, Solaris, OS/400, z/OS
- DBMS: MaxDB, Oracle, DB2, MS SQL Server
- Browsers: Microsoft IE, Netscape Navigator

Platform independence

- SAP NetWeaver Application Server shields applications from OS and DBMS specifics
- Web Dynpro shields applications from browser and device specifics
- Printing and Forms based on Adobe Document Server

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OS/DB Product Availability Matrix for SAP NetWeaver 7.0



X Available for DB and APP	P Planned	-	Windows (*8)			AIX		HP-UX				Solaris		Linux SUSE SLES9, SLES 10, Red Hat EL 4, 5				i5/OS	z/OS	TRU 64	
			Server 2003 on IA32 32bit	Server 2003 on IA64 64bit	Server 2003 on x64 64bit	5.2, 5.3 64bit	6.1 64bit	11.11 on PA-RISC 64bit	11.23 on PA-RISC 64bit	11.31 on PA-RISC 64bit	11.23 on IA64 64bit	11.31 on IA64 64bit	9, 10 on SPARC 64bit	10 on x64 64bit	IA32 32bit	IA64 64bit	x86_64 64bit	Power 64bit	(No Red Hat EL 4) System Z 64bit	V5R3, V5R4 64bit	1.6, 1.7, 1.8 64bit
Neither supported nor planned																					
Unicode/Non-Unicode			+/+	+/+	+/+	+/+	+/+	+/+	+/+	+/+	+/+	+/+	+/+(*16)	+/+	+/+	+/+	+/+	+/+	+/+	-	+/+
Oracle 10.2 (*3)			(*12)	X	X	X	Q1	X	X	X(*7)	X	X	(*12)	X	X	X	X	X(*2)	-	-	-
SQL Server 2000			(*12)	X	(*9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SQL Server 2005 (*10)			(*12)	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DB2 LUW 8 (*13)			(*12)	X	X	X	Q1	X	X	-	X	-	X	-	(*12)	X	X	X	-	-	-
DB2 LUW 9 (*13)			(*12)	X	X	X	Q1	-	X	-	X(*11)	X	-	(*12)	X	X	X	X	-	-	-
MaxDB 7.6			(*12)	X	X	X	Q1	X	X	X	X	X	X	(*12)	X	X	X	X	-	-	-
DB2 for i5/OS V5R3, V5R4 (*4)			APP	-	APP	-	-	-	-	-	-	-	-	-	-	-	APP	-	X	-	-
DB2 for z/OS V8, V9			APP (*5)	-	APP	APP	Q1	-	-	-	-	-	-	-	-	APP (*6)	-	APP	-	HA(*1) DB	-
Informix			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Legend available on next slide

APP	Not for DB server. Application server with whole SAP NetWeaver stack only.
DB	Database Server only
HA	High Available Solution only
x64	X64 and x86_64 represent the same hardware

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Legend for SAP NetWeaver 7.0



Legend:

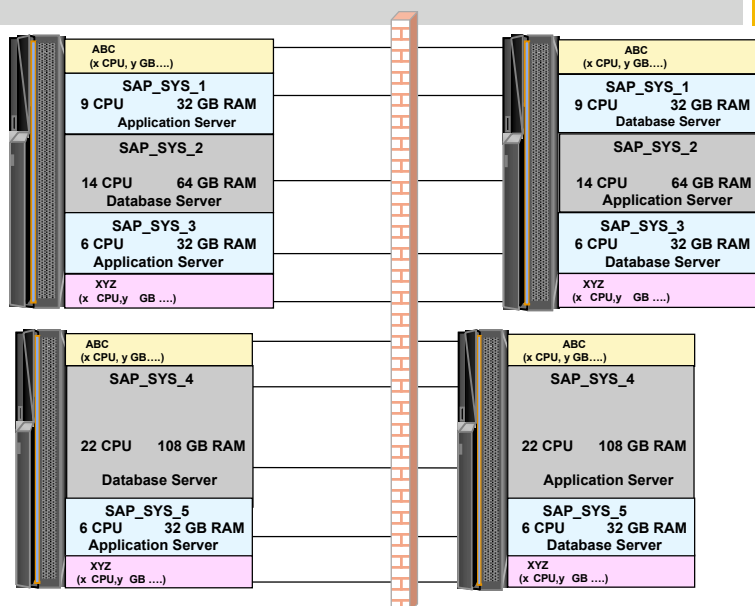
- (*1) See SAP note 821904 „Separating SCS instances for ABAP and J2EE“
- (*2) Linux SLES 10 planned for Q4 2007.
- (*3) See SAP note 720886 “Oracle Database 10g: Integration in the SAP environment”. For Double-Byte code pages see SAP note 858869 „Desupport of multibyte character sets as of Oracle 10g”.
All availability information applies to new installations of SAP Solution Manager 4.0 too. For Information about the upgrade to SAP Solutions Manager 4.0 please refer to <http://service.sap.com/pam>
- (*4) For upgrade start system on ASCII or Unicode required
- (*5) Non Unicode available only
- (*6) Linux SLES and Linux RHEL 5 (not RHEL 4) available.
- (*7) Planned for November 2007.
- (*8) English version only. See SAP note 362379 “Localized Windows & MUI Support for SAP Software on Windows”.
- (*9) DB server 32-bit only
- (*10) See SAP note 905634 „Release planning for Microsoft SQL Server 2005” for more details
- (*11) Planned availability with DB2 for LUW 9 FP3
- (*12) Rapid Installer available
- (*13) DB2/UDB renamed to DB2 Linux Unix Windows (LUW)
- (*14) Planned for SAP NetWeaver SR2
- (*16) Non-Unicode: Dialog Instances only

Note:

- PI-PCKs do run on the same platforms as PI
- Platform coverage of IGS is identical to the coverage of Usage Type „AS Java” and „AS ABAP”

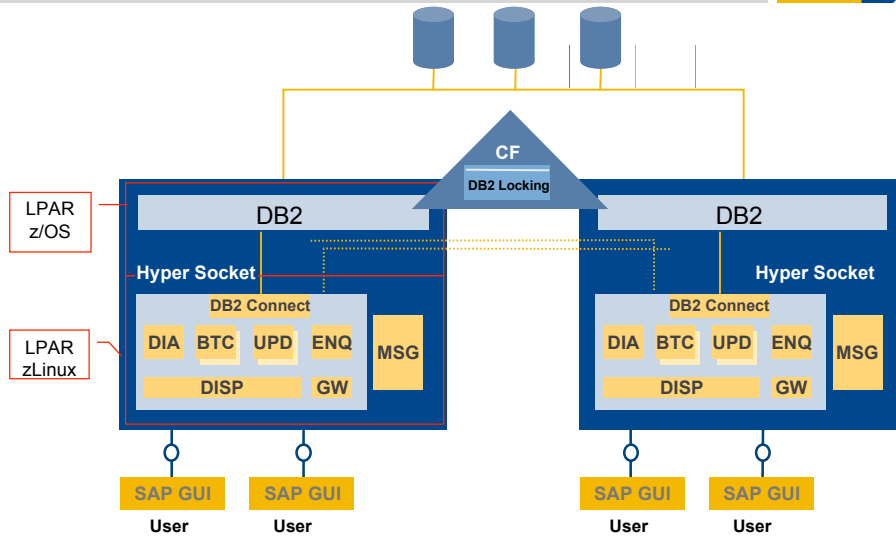
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SAP on high end System P



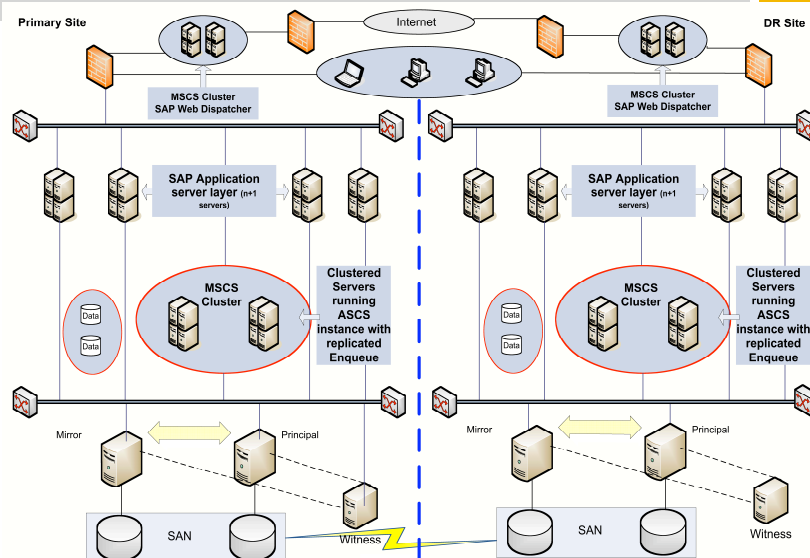
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Parallel Sysplex Environment Linux for zSeries



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High Availability Scenario (Proposal)



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Vertical Scalability of Computing Infrastructure

One-tier

- Laptop demo system

Two-tier

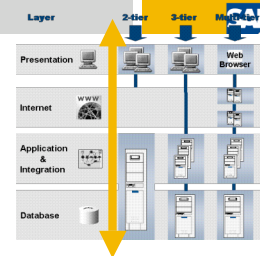
- Central installation (database and application part on one physical server), multiple presentation servers

Three-tier

- One database server, multiple application servers and multiple presentation servers

Multi-tier

- One database server, multiple application servers, multiple presentation servers, multiple Internet Transaction Servers and multiple Web servers



Horizontal Scalability

Presentation layer

- 100,000 very active users connected to one database have been tested

Internet layer

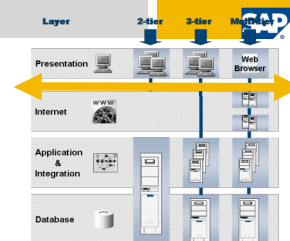
- More than tens of thousands of hits /sec
- 10 servers at one of our largest customers

Application and Integration layer

- Up to 161 application servers have been tested successfully

Database layer

- Scalability through SMP architecture of the database server
- More than 120 CPUs and more than 10 TB database size
- Scalability through parallel databases
- Scalability through components



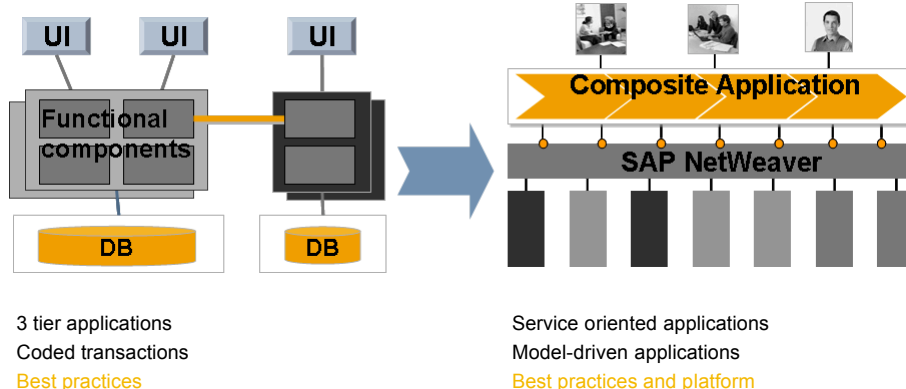
What are SAPS?



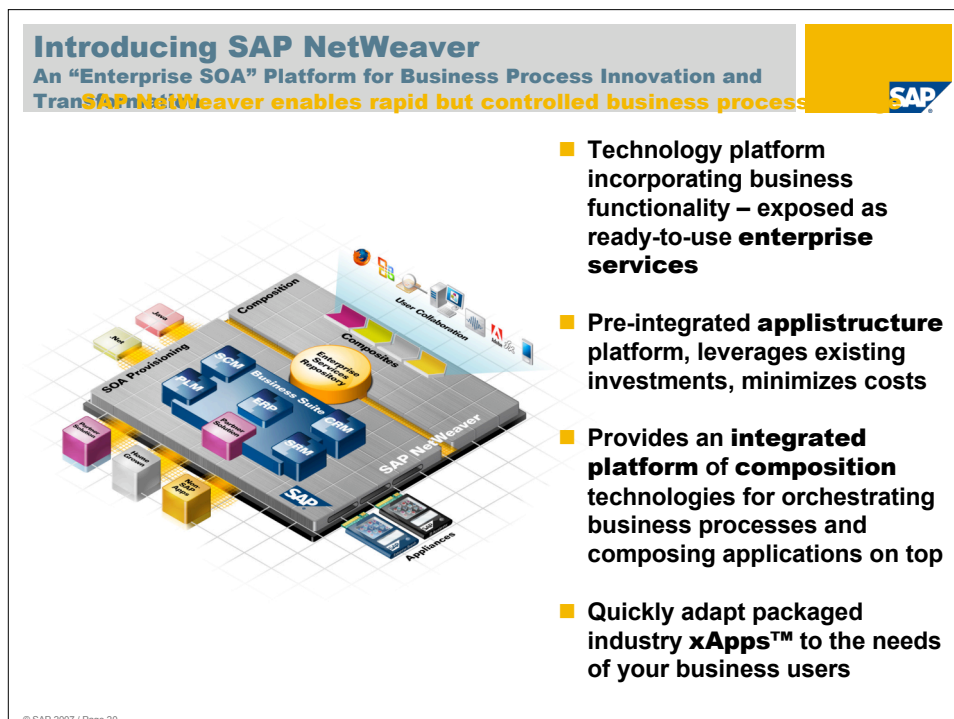
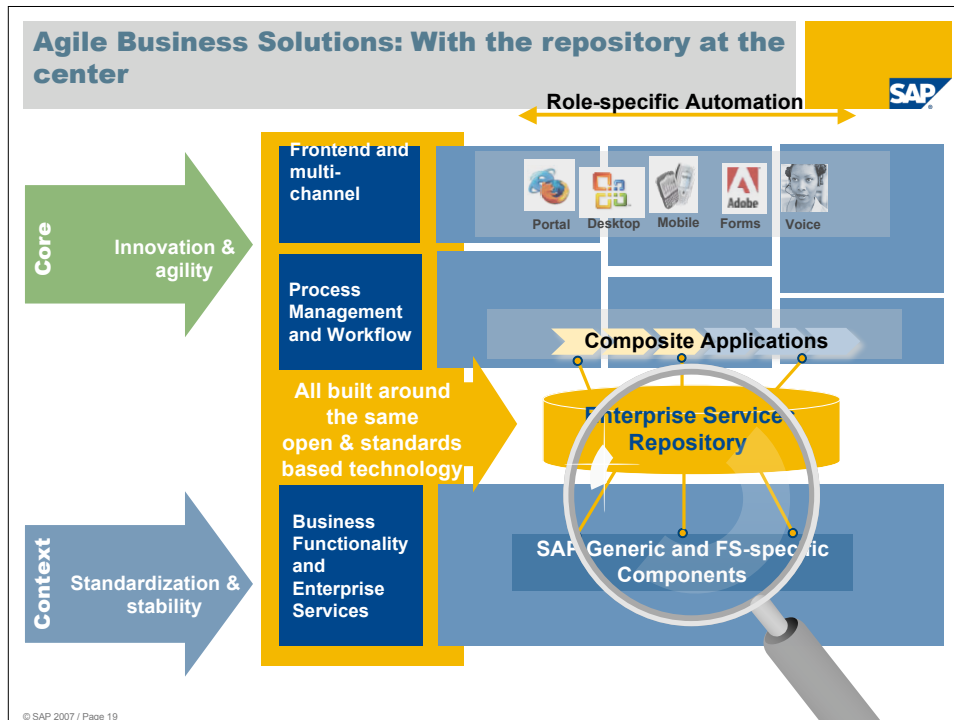
The SAP Application Performance Standard (SAPS) is a hardware-independent unit that describes the performance of a system configuration in the SAP environment. It is derived from the Sales and Distribution (SD) Benchmark, where 100 SAPS is defined as 2,000 fully business processed order line items per hour.

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A Fundamental Shift in Application Architecture



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SAP NetWeaver platform helps IT deliver strategic value to the business

